

Docket No.: 28079/41333
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Kenneth A. Barton et al.

Application No.: 07/827,906

Confirmation No.: 3375

Filed: January 30, 1992

Art Unit: 1638

For: IMPROVED EXPRESSION OF GENES IN
PLANTS

Examiner: A. R. Kubelik

INFORMATION DISCLOSURE STATEMENT WITH DOCUMENTS UNDER SEAL

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants request that this Information Disclosure Statement be entered and considered by the examiner during the prosecution of this application and that the references be made of record therein (except as noted in the next paragraph).

A copy of each listed document is filed herewith, although many of the enclosed documents are being submitted under seal with the labels appended hereto. Some of the documents in this Information Disclosure Statement are subject to protective orders entered in prior litigations and are being submitted under seal for consideration by the Examiner under MPEP § 724, without scanning or publication by the USPTO. These documents are labeled in accordance with MPEP § 724.02 and are identified in the table below. Applicants also submit a petition and fee under 37 CFR § 1.59, requesting that these documents be expunged from the file.

Litigation	Documents Subject to Protective Order
(1) <u>Mycogen Corp. v. Monsanto Co.</u> , 1:04-CV-0573 DFH-WTL, U.S. District Court for the Southern District of Indiana, filed March 30, 2004.	C4 - C13.
(2) <u>Monsanto Co. v. Mycogen Plant Science, Inc.</u> , 96-133-RRM, U.S. District Court for the District of Delaware, filed March 19, 1996.	C18 - C24; C32 - C33; C38 - C40; C42 - C44; C51-C55; C156 - C170.
(3) <u>Mycogen Plant Science, Inc. v. Monsanto Co.</u> , 950653J (LSP), U.S. District Court for the Southern District of California, filed May 19, 1995.	C173; C191- C194.
(4) <u>Mycogen Plant Science, Inc. v. Monsanto Co. et al.</u> , 96-505-RRM, U.S. District Court for the District of Delaware, filed October 22, 1996.	C198-C202; C208-C211; C214-C225; C228-C232; C305

The documents in this Information Disclosure Statement originate from four separate litigations which may be viewed as related to the subject matter for which a patent is being sought on the above identified application. Such submission is made in accordance with MPEP §2001.06 (c) and 37 CFR §§1.56, 1.97, and 1.98, and should not be construed as a representation that a search has been made or as an admission that the information cited is, or is considered to be, material to patentability as defined in 37 CFR § 1.56(b). A general overview of these prior litigations is provided below for the Examiner's convenience. Should the Examiner have questions regarding these litigations, the undersigned attorney would be happy to attempt to provide answers.

(1) Mycogen Corp. v. Monsanto Co., 1:04-CV-0573 DFH-WTL, U.S. District Court for the Southern District of Indiana, filed March 30, 2004. Documents C1 to C14 are from this litigation. Mycogen filed suit against Monsanto pursuant to 35 U.S.C. § 146 for dissatisfaction with the Final Decision of the Board of Patent Appeals and Interferences for Patent Interference No. 103,781 ("the '781 Interference") (C1: Exhibit A). The patent and applications involved in the interference were (a) U.S.S.N. 08/434,105, filed May 3, 1995, a pending application of inventors David Fischhoff *et al.*; (b) U.S. Application No. 07/827,906 of inventors Barton *et al.*, filed Jan. 30, 1992 (the present application); and (c) U.S. Patent No. 5,380,831 ("the '831 patent") of inventors Adang *et al.*, filed May 3, 1993. The complaint is document C1, Monsanto's answer is C2, and Mycogen's reply is C3.

The interference was eventually defined by the following "Count 2": (a) any one of claims 3, 5, 39, and 40 of Fischhoff et al.'s application 08/434,105, filed May 3, 1995, (b) any one of claims 1-4, 7, and 15-22 of Barton et al.'s application 07/827,906, filed January 30, 1992, and (c) any one of claims 1-12 of Adang et al.'s '831 patent (C1: Exhibit A at 194). As common owner of the Fischhoff and Barton applications, Monsanto elected Fischhoff as the first to invent the subject matter of Count 2 (C1: Exhibit A at 54). Thereafter, the Board granted priority to Fischhoff over Adang based upon findings that Fischhoff had a prior conception and reduction to practice and that Adang was not diligent in their reduction to practice (C1: Exhibit A at 2). The Board also held that Barton et al. were not entitled to a patent containing claims 1-12 of the '831 patent.

During the § 146 action, Mycogen asserted various dates of conception and reduction to practice for Barton and Adang regarding the inventive subject matter of Count 2 and the invention of modifying the coding sequence of a Bt gene to reduce the number of polyadenylation signals and ATTTA nucleotide sequences in the coding sequence (C4 at 9-14). Monsanto also asserted various dates of conception and reduction to practice for Barton and Fischhoff regarding the subject matter of Count 2 and the invention of modifying the coding sequence of a Bt gene to reduce the number of polyadenylation signals and ATTTA nucleotide sequences in the coding sequence (C5 at 6-11).

Monsanto also responded that it was dissatisfied with certain findings of the Board, including the Board's finding that Fischhoff was not entitled to a conception date of October 30, 1986 (C5 at 3-6). Monsanto proffered expert reports by Mr. John Goolkasian and Dr. Joachim Messing to address these issues (C6, C7, C9). Mycogen proffered expert reports by Dr. Joseph Falkinham to address these issues (C8, C10). Monsanto also filed a motion for summary judgment that Fischhoff was the first to invent the subject matter of Count 2 (C11; Opposition at C12; Reply at C13). The Court also issued an opinion as to certain pending motions (C14). Monsanto and Mycogen discovery responses addressing these issues are provided as documents C4-C5.

Monsanto and Mycogen settled the § 146 action before final adjudication. This resulted in Mycogen withdrawing its allegations of prior invention by Barton and Adang, thus leaving intact the Board's grant of prior invention to Fischhoff over Adang regarding Count 2.

Litigations (3) and (4), described below, also relate to Mycogen's U.S. Patent No. 5,380,831.

(2) Monsanto Co. v. Mycogen Plant Science, Inc., 96-133-RRM, U.S. District Court for the District of Delaware, filed March 19, 1996. Documents C15 to C170 are from this litigation. This litigation related to U.S. Patent No. 5,500,365 ("the '365 patent") which issued from a divisional application of Fishchhoff et al., U.S.S.N. 08/434,105. In this litigation, Monsanto asserted that Mycogen Plant Science, Agrigenetics, and Ciba-Geigy had infringed the '365 patent by making, using, and/or selling corn products containing Event 176, a trait directed to conferring resistance to insects.

Prior art asserted by Ciba and Mycogen is included in their notices under 35 U.S.C. § 282 (C15-17). Interrogatory responses related to the parties invalidity contentions are documents C18-C24.

Expert reports were also submitted by the parties on the litigated issues, including those found at C156-C170. Expert reports proffered by Monsanto included reports by Nam-Hai Chua (C169-C170) and John Goolkasian (C166-C167). Expert reports by Mycogen included reports by Lawrence Bogorad (C161), Michael Adang (C156), and Joseph Falkinham (C163-C165). Expert reports by Novartis included reports Arthur Aronson (C157), Julia Bailey-Serres (C158, C168), and John Dewhirst (C162).

The defendants filed various summary judgment motions. Ciba-Geigy moved for summary judgment of invalidity based on prior inventorship under 35 U.S.C. § 102(g) ((C38); Monsanto Opposition (C39); Ciba Reply (C40)). Mycogen moved for summary judgment of invalidity based on obviousness under 35 U.S.C. § 103 ((C41-C42); Monsanto Opposition (C43); Mycogen Reply (C44)). Mycogen and Ciba-Geigy filed a motion to dismiss under Rule 12(b)(6) for failure to comply with the written description requirement of 35 U.S.C. § 112 ¶ 1 ((C45-47); Monsanto Opposition (C48); Reply (C49)). A court hearing was held, in part, on this motion (C37). The motion was denied (C50). Ciba-Geigy and Mycogen filed summary judgment motions asserting that the '365 patent was invalid for lack of written description under 35 U.S.C. § 112 ((C51, C52); Monsanto Opposition (C53); Ciba-Geigy and Mycogen Replies (C54 and C55)).

A jury trial was held on issues of infringement and invalidity. Trial transcripts that may be viewed as relevant to the subject matter for which a patent is sought on the above application may be found as documents C61-C155. Included in the transcripts are testimony

by inventors Fischhoff (C91, C129-132) and Perlak (C89, C95, C110-113). Testimony by alleged prior inventors Barton and Miller may be found as documents C82, C86, and C88. Expert testimony introduced by Monsanto included Nam-Hai Chua (C76-C81, C109, C135-6) and John Goolkasian (C71-75, C166-7). Expert testimony introduced by Mycogen included Lawrence Bogorad (C146-8); Michael Adang (C99-101); and Joseph Falkinham (C106-8). Expert testimony introduced by Novartis included Julia Bailey-Serres (C92-4) and John Dewhirst (C83-5).

The jury found that the asserted claims (claims 7, 8, 9, and 12) were literally infringed, but that the accused products were so far changed from the principle of the claimed invention that they did not infringe under the reverse doctrine of equivalents (C59 at 5). The jury also found that the asserted claims were invalid because of prior invention by scientists at Agracetus, Barton and Miller (C59 at 5). The Court later held a bench trial regarding whether the '365 patent was unenforceable due to alleged inequitable conduct by Monsanto (C59 at 5). Fischhoff also testified during the bench trial (C149-152).

All of the parties requested judgment as a matter of law (JMOL) after trial on various issues. Monsanto's JMOL briefing on non-infringement under the reverse doctrine of equivalents and invalidity by prior invention may be found as documents C25, C29, and C36, with opposition briefing as documents C32 and C33. Mycogen's and Novartis' JMOL briefing on invalidity due to lack of written description, indefiniteness, and obviousness may be found as documents C26-28, C30, and C34-35, with opposition briefing as document C31.

The Court issued an opinion on the JMOL's and inequitable conduct (C58, C59). The Court denied Monsanto's JMOL on invalidity for prior invention (C59 at 101-115). Specifically, the Court found that while Fischhoff reduced the asserted claims to practice before Barton and Miller (C59 at 106-111), the jury could have found that Barton and Miller conceived first and were diligent in reducing to practice (C59 at 111-115). The Court found in favor of Monsanto on the issue of infringement under the reverse doctrine of equivalents and entered judgment as a matter of law for Monsanto on the issue (C59 at 115-121). The Court denied Mycogen's and Novartis' JMOL's on invalidity due to lack of written description (C59 at 121-127), indefiniteness (C59 at 128-130), and obviousness (C59 at 130-132). The Court also found that Monsanto had not committed inequitable conduct during prosecution of the '365 patent (C59 at 136-148). The result of the Court's opinion was that

the defendants were found to have infringed the asserted claims of the '365 patent, but these claims were invalid based on prior invention by Barton and Miller.

Monsanto appealed to the Federal Circuit regarding prior invention by Barton and Miller (C60). The Federal Circuit upheld the district court's decision and affirmed in favor of the defendants on the issue (C60 at 12).

(3) Mycogen Plant Science, Inc. v. Monsanto Co., 950653J (LSP), U.S. District Court for the Southern District of California, filed May 19, 1995. Documents C171 to C194 are from this litigation. In this litigation, Mycogen asserted that Monsanto had willfully infringed Adang's '831 patent by making, using, and/or selling products containing Monsanto's BollGard® cotton gene, Monsanto's YieldGard® corn gene, Monsanto's NewLeaf® potato gene, Northrup King *Bt* 11 event gene, or the Stoneville cotton gene. In response, Monsanto asserted, *inter alia*, that Monsanto scientists Fred Perlak and David Fischhoff invented the claimed invention of the '831 patent prior to Mycogen. (The '831 patent was also the subject of the '781 Interference described above.)

Monsanto proffered expert reports by Mr. John Goolkasian, Mr. Dallas Johnson, and Dr. Joachim Messing (C191, C192, C193). Mycogen proffered an expert report by Dr. Joseph Falkinham (C194). Interrogatory responses are provided as documents C171-173.

On December 28, 1995, Mycogen moved for summary judgment of validity of the '831 patent claims ((C174-175); Monsanto's Opposition (C176), Mycogen's Reply (C177)). In denying Mycogen's motion, the Court declined to "make a ruling that Monsanto has failed to establish the invalidity of Mycogen's patent" (C178 at 3).

Sometime later, on March 30, 1998, Monsanto moved for summary judgment of invalidity under 35 U.S.C. §§ 102(g) and 103 ((C179); Mycogen's Opposition (C180); Monsanto's Reply (C181)). Monsanto further moved for summary judgment that the '831 patent claims were invalid under 35 U.S.C. § 112 ((C182); Mycogen's Opposition (C183); Monsanto's Reply (C184)). Following oral arguments on the summary judgment motions, the Court stayed the proceedings until the post-trial motions in the related case in Delaware were complete (see section (4) below). On September 8, 1999, following rulings on these motions in Delaware, the Court lifted the stay and granted Monsanto's motion for summary judgment pursuant to 35 U.S.C. §§ 102(g) and 103 (C185). The Court denied Monsanto's motion for summary judgment under 35 U.S.C. § 112 as moot. *See* C185.

These decisions were appealed to the Federal Circuit. Upon reviewing the district court's prior invention determination, the Federal Circuit concluded that summary judgment was improper because fact issues remained to be resolved on the issue of prior inventorship. C186 (*Mycogen Plant Science, Inc. v. Monsanto Co.*, 252 F.3d 1306, 1314 (Fed. Cir. 2001)). The Federal Circuit declined to rule on Monsanto's motion for summary judgment of invalidity under 35 U.S.C. § 112, leaving it to the district court to resolve in the first instance. *Mycogen Plant Science*, 252 F.3d at 1317.

Following the Federal Circuit decision, Monsanto renewed its motion for summary judgment of invalidity under 35 U.S.C. § 112 (C187, Mycogen's Opposition at C188, Monsanto's Reply at C189). The Court denied Monsanto's motion on June 4, 2002 (C190). Subsequently, Mycogen dismissed all pending claims with prejudice.

(4) *Mycogen Plant Science, Inc. v. Monsanto Co. et al.*, 96-505-RRM, U.S. District Court for the District of Delaware, filed October 22, 1996. Documents C195 to C305 are from this litigation. This litigation related to patents issuing from continuing applications of Adang's '831 patent—specifically, U.S. Patent Nos. 5,567,600 ("the '600 patent") and 5,567,862 ("the '862 patent"). In this litigation, Mycogen asserted that Monsanto had willfully infringed the '600 and '862 patents by making, using, and/or selling products containing Monsanto's BollGard® cotton gene, Monsanto's YieldGard® corn gene, Monsanto's NewLeaf® potato gene, Northrup King *Bt* 11 event gene, or the Stoneville cotton gene. Monsanto asserted, *inter alia*, that Monsanto scientists Fred Perlak and David Fischhoff invented the claimed invention of the '600 and '862 patents prior to the Mycogen inventors. In response to that allegation, Mycogen further asserted that Monsanto had derived the subject matter claimed in the '600 and '862 patents from Mycogen.

Prior art asserted by Monsanto and Delta and Pine Land Company and by DeKalb Genetics are included in their notices under 35 U.S.C. § 282 (C195-196). Interrogatory responses are at C197-202. Monsanto also proffered expert reports on the litigated issues by Mr. Donald Banner, Mr. Dallas Johnson, and Dr. Joachim Messing (C228, C229, C230 respectively). Mycogen proffered expert reports by Mr. Lawrence Bogorad and Dr. Joseph Falkinham (C231, C232).

Prior to trial, Monsanto filed a summary judgment motion of invalidity under 35 U.S.C. § 102(g) asserting that Mycogen was not the first to invent the subject matter of the '862 and '600 patents ((C214, C216 (amended)); Mycogen's Opposition (C215); Monsanto's

Reply (C217)). Monsanto also filed a summary judgment motion of invalidity under 35 U.S.C. § 112 asserting that the '862 and '600 patents failed to satisfy the enablement requirement and would require undue experimentation in order to practice the claimed invention ((C218), Mycogen's Opposition (C219-220); Monsanto's Reply (C221)). Co-defendant DeKalb Genetics Corp. filed its summary judgment motion of invalidity under 35 U.S.C. § 112, asserting that the '862 and '600 patents failed to satisfy the enablement requirement ((C222); Mycogen's Opposition (C223-224); DeKalb's Reply (C225)). Letters addressed to the Court regarding the above summary judgment motions are included as documents C212-213. The district court judge did not grant any of these motions.

A jury trial was held on issues of infringement and invalidity. Trial transcripts that may be viewed as relevant to the subject matter for which a patent is sought on the above application may be found as documents C234 to C304. Included within the trial transcripts are testimony by both Elizabeth Murray (C237 to C241) and Michael Adang (C277 to C280) and Mycogen experts Mr. Lawrence Bogorad and Dr. Joseph Falkinham (C273 to C276). Also included within the trial transcripts are testimony by Monsanto scientists Fred Perlak (C242 to C244) and David Fischhoff (C256 to C258) as well as testimony by Monsanto expert Dr. Joachim Messing (C259, C260).

The jury found that the claimed invention of the '600 and '862 patents were invalid due to prior invention by Monsanto and entered a "N/A" as to the remaining invalidity issues (C226 at 10-12). The Delaware court entered a judgment declaring that the '600 and '862 patents were invalid based upon the jury's determination that Monsanto was the first to invent the technology underlying those patents. *See* C226. All parties moved for judgment as a matter of law (JMOL) on various issues following entry of the judgment. Mycogen moved for JMOL on the issues of prior inventorship and obviousness and moved for a new trial ((C203, C204); Monsanto's Opposition (C205); DeKalb's Opposition (C206); Mycogen's Reply (C207)). Monsanto moved for JMOL on invalidity based on prior invention and invalidity due to lack of enablement as well as indefiniteness ((C208, C209, C210); Mycogen's Opposition (C305); Monsanto's Reply (C211)).

The Court issued an opinion on the JMOL motions (C227) which denied Mycogen's motion for JMOL and granted Monsanto's motion for JMOL holding that the claims of the '600 and '862 patents were invalid for lack of enablement.

On appeal, the Federal Circuit affirmed the jury's verdict of invalidity based upon prior invention pursuant to 35 U.S.C. § 102(g). See C233. It found that this rendered a ruling on the district court's grant of Monsanto's JMOL of lack of enablement pursuant to 35 U.S.C. § 112, unnecessary (C233).

This Information Disclosure Statement is filed after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Office Action or Notice of Allowance (37 CFR 1.97(c)). Accordingly, our check in the amount of \$180.00 covering the fee set forth in 37 CFR 1.17(p) is enclosed. Should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to the enclosed materials, the Commissioner is authorized to deduct said fees from our Deposit Account No. 13-2855, under Order No. 28079/41333.

Dated: February 9, 2009

Respectfully submitted,

By 

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PATENT AND TRADEMARK OFFICE EMPLOYEE
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Tribunal Issuing Protective Order: U.S. District Court for the
Southern District of California

Civil Action or Other Identification No.950653J (LSP),

Mycogen Plant Science, Inc. v. Monsanto Co.

Date of Order: March 5, 1997

Current Status of Proceeding: Concluded

In re Application of: BARTON, Kenneth A.

Application No.: 07/827,906

Filed: January 30, 1992

For: IMPROVED EXPRESSION OF GENES IN PLANTS

TC Art Unit: 1638

Examiner: KUBELIK, A.R.

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Tribunal Issuing Protective Order: U.S. District Court for the
Southern District of Indiana

Civil Action or Other Identification No. 1:04-CV-0573 DHF-
WTL, Mycogen Plant Science, Inc. v. Monsanto Co.

Date of Order: September 16, 2004

Current Status of Proceeding: Concluded

In re Application of: BARTON, Kenneth A.

Application No.: 07/827,906

Filed: January 30, 1992

For: IMPROVED EXPRESSION OF GENES IN PLANTS
TC Art Unit: 1638 Examiner: KUBELIK, A.R.

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Tribunal Issuing Protective Order: U.S. District Court for the
District of Delaware

Civil Action or Other Identification No. 96-133-RRM.

Monsanto Co. v. Mycogen Plant Science, Inc.

Date of Order: November 10, 1997

Current Status of Proceeding: Concluded

In re Application of: BARTON, Kenneth A.

Application No.: 07/827,906

Filed: January 30, 1992

For: IMPROVED EXPRESSION OF GENES IN PLANTS

TC Art Unit: 1638

Examiner: KUBELIK, A.R.

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Tribunal Issuing Protective Order: U.S. District Court for the
District of Delaware

Civil Action or Other Identification No. 96-505-RRM,
Mycogen Plant Science, Inc. v. Monsanto Co.

Date of Order: July 24, 1997

Current Status of Proceeding: Concluded

In re Application of: BARTON, Kenneth A.

Application No.: 07/827,906

Filed: January 30, 1992

For: IMPROVED EXPRESSION OF GENES IN PLANTS

TC Art Unit: 1638

Examiner: KUBELIK, A.R.